Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) A prosthesis comprising a flexible portion and at least one less flexible portion, wherein said flexible portion comprises a fibre-reinforced hydrogel containing chopped fibres, the hydrogel comprising charged groups, characterized in that fibres are wound around and encompass the whole of the flexible portion and the at least one less flexible portion to reinforce the prosthesis.

2. (Previously presented) The prosthesis according to claim 1, characterized in that said less flexible portion is provided on a bottom side and/or an upper side of said flexible portion.

3. (Previously presented) The prosthesis according to claim 1, characterized in that said less flexible portion is an end plate.

4. (Previously presented) The prosthesis according to claim 1, characterized in that said less flexible portion is provided on an inner side of said flexible portion.

5. (Previously presented) The prosthesis according to claim 1, characterized in that said prosthesis is for replacement of a joint in a human or animal.

6. (Previously presented) The prosthesis according to claim 5, characterized in that said prosthesis is for replacement of a part or the whole of an intervertebral disc.

7. (Previously presented) The prosthesis according to claim 1, characterized in that said flexible portion has swelling characteristics comparable to those of a natural intervertebral disc.

8. (Previously presented) The prosthesis according to claim 1, characterized in that said flexible portion consists of a slice of a fibre-reinforced hydrogel having a thickness of 5-15 mm.

9. (Previously presented) The prosthesis according to claim 8, characterized in that said slice of fibre-reinforced hydrogel has a thickness of 8-10 mm.

10. (Previously presented) The prosthesis according to claim 1, characterized in that said fibre-reinforced hydrogel comprises at least 5% fibres.

11. (Previously presented) A prosthesis consisting of the prosthesis of claim 1, characterized in that the prosthesis is intended to replace cartilaginous materials.

12-20. (Canceled)

21. (Previously presented) A method of using a prosthesis comprising implanting the prosthesis of claim 1 in a human or an animal.

22. (Previously presented) The method for according to claim 21, characterized in that the volume of the prosthesis is reduced prior to the implantation thereof by extracting water therefrom.

23. (Previously presented) The method according to claim 22, characterized in that the volume of the prosthesis is reduced by immersing it in a hypertonic salt bath.

24. (Previously presented) A method for manufacturing the prosthesis according to claim 1, characterized in that the fibres are provided around the whole of the flexible portion and at least one less flexible portion by winding to reinforce the prosthesis.

25. (Previously presented) The method according to claim 24, characterized in that the angle at which the fibres are arranged with respect to an axis of rotation varies from 5° to 90°.

26. (Previously presented) The method according to claim 25, characterized in that said angle varies from 45° to 60°.

27. (Previously presented) The prosthesis according to claim 1, characterized in that the flexible portion is prepared by forming a bar of the hydrogel from which slices are cut.

28. (Cancelled)

29. (Previously presented) The prosthesis according to claim 27, characterized in that said slices are cut by setting up the bar on a lathe and moving a knife through the bar.

30. (Previously presented) The prosthesis according to claim 29, characterized in that said knife is lubricated during cutting.

31. (Previously presented) The prosthesis according to claim 1, characterized in that said fibres wound around the flexible portion have a low elasticity modulus.

32. (Previously presented) The prosthesis according to claim 31, characterized in that said fibres wound around the flexible portion are capable of absorbing hydrogel monomers.

33. (Previously presented) The prosthesis according to claim 31, characterized in that said fibres wound around the flexible portion are made of polyurethane.

34-36. (Canceled)

37. (New) The prosthesis according to claim 1, wherein the hydrogel comprises negatively charged groups, such that the hydrogel is configured to absorb fluid by osmotic action when the hydrogel is at rest.